

Assignment Statements Syntax

Operation Symbols

Addition	+
Subtraction	-
Multiplication	*
Division	/
Exponentiation	^
Remainder Division	Mod

Assignment Statements:

The calculations must be on the right side of the equal sign. On the left side of the equal sign is the variable name for the memory location that will hold the value of the expression on the right.

Algebraic Formulas Rewritten as Visual BASIC Assignment Statements:

<u>Algebraic</u>	<u>Visual BASIC Syntax</u>
$F = ma$	Force = Mass * Acceleration
$i = prt$	Interest = Principal * Rate / 100 * Time
$d = rt$	Distance = Rate * Time
$A = p + prt$	Amount = Principal + Principal * Rate / 100 * Time
$F = \frac{9}{5}C + 32$	Fahrenheit = 9 / 5 * Celsius + 32
$p = i^2r$	Power = Current ^ 2 * Resistance
$P = 2l + 2w$	RectanglePerimeter = 2 * Length + 2 * Width
$A = lw$	RectangleArea = Length * Width
$A = \pi r^2$	CircleArea = Pi * Radius ^ 2
$P = 2\pi r$	Perimeter = 2 * Pi * Radius

Assignment Statements Syntax

$$A = \frac{1}{2}bh \qquad \text{TriangleArea} = 1 / 2 * \text{Base} * \text{Height}$$

$$A = s^2 \qquad \text{SquareArea} = \text{Side} \wedge 2$$

$$t = cr \qquad \text{SalesTax} = \text{Cost} * \text{TaxRate} / 100$$

$$d = cp \quad \text{Discount} = \text{Cost} * \text{PercentOff} / 100$$

$$s = c - d \qquad \text{SalePrice} = \text{Cost} - \text{Discount}$$

$$m = \frac{y_2 - y_1}{x_2 - x_1} \text{ Slope} = (Y_2 - Y_1) / (X_2 - X_1)$$

$$h = vt - 5t^2$$

Height = InitialVelocity * Time - 5 * Time ^ 2

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\text{Root1} = (-b + \text{Sqr}(b^2 - 4 * a * c)) / (2 * a)$$

$$\text{Root2} = (-b - \text{Sqr}(b^2 - 4 * a * c)) / (2 * a)$$

Pythagorean Theorem

$c^2 = a^2 + b^2$ You must have only a variable on the left of the =. In this case it is necessary to solve for the c before writing the assignment statement.

$$c = \sqrt{a^2 + b^2} \qquad c = \text{Sqr}(a^2 + b^2)$$

Order of Operations

- 1 Inside Parentheses
- 2 Exponents
- 3 Multiplication and Division in order from left to right
- 4 Addition and Subtraction in order from left to right